

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/796,126	03/10/2004	Christian Cottevieille	Q80242	Q80242 2476	
7	1590 12/27/2005		EXAM	INER	
SUGHRUE N	MION, PLLC		TRAN, HOANG Q		
Suite 800					
2100 Pennsylvania Avenue, N.W.			ART UNIT	PAPER NUMBER	
Washington, DC 20037-3213			2874		

DATE MAILED: 12/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	$\langle \alpha_i \rangle_{z}$			
	10/796,126	COTTEVIEILLE ET AL.	Chil			
Office Action Summary	Examiner	Art Unit				
	Hoang Tran	2874				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the c	orrespondence address	S			
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period value and the second period for reply within the set or extended period for reply will, by statute any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 36(a). In no event, however, may a reply be tim will apply and will expire SIX (6) MONTHS from a cause the application to become ABANDONE	N. nely filed the mailing date of this commun D (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on 30 N	ovember 2005.					
2a)⊠ This action is FINAL . 2b)□ This	action is non-final.					
·— · · ·	Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under E	Ex parte Quayle, 1935 C.D. 11, 45	53 O.G. 213.				
Disposition of Claims						
4) ⊠ Claim(s) <u>1-6</u> is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☒ Claim(s) <u>1-6</u> is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/o						
Application Papers						
9) The specification is objected to by the Examine 10) The drawing(s) filed on is/are: a) acc Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct 11) The oath or declaration is objected to by the Example 11.	epted or b) objected to by the drawing(s) be held in abeyance. Settion is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority document 2. Certified copies of the priority document 3. Copies of the certified copies of the priority application from the International Burea * See the attached detailed Office action for a list	s have been received. s have been received in Applicat rity documents have been receive u (PCT Rule 17.2(a)).	ion No ed in this National Stag	ge			
Attachment(s) 1) Notice of References Cited (PTO-892)	4) 🔲 Interview Summary	/ (PTO-413\				
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail D		١			
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	6) Other:	atoni Application (F10-152	1			

Art Unit: 2874

DETAILED ACTION

This office action is in response to the amendment filed on November 30, 2005. Claims 7-10 are cancel. Currently, claims 1-6 are still pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 6, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by the US Patent to Casiraghi (6,278825B1).

In terms of Claim 1, Casiraghi teaches an optical fiber cable (Figure 1), at least one central strength member (Column 3 lines 25-30), at least one optical fiber (Column 3 lines 24), a metallic conductor surrounding said fiber (Column 3 lines 40-45), surrounding said conductor (Column 3 lines 40-45), a layer of insulative composition comprising mainly a mixture of polymers comprising at least one high density first polymer and low density second polymer which has a lower viscosity than said first polymer (Column 4I line 25-45).

As for Claim 3, Casiraghi teaches a cable according to Claim 1, wherein said first polymer is a high-density polyethylene and said second polymer is a low-density polyethylene (Column 4 lines 20-25 and Table 1).

As for Claim 6, Casiraghi teaches a cable according to Claim 1, wherein said insulative composition further contains additives (Column 5 lines 30-35).

Art Unit: 2874

As for Claim 7, Casiraghi teaches a cable according to Claim 1, wherein said first and second polymers are mixed by means of a two-screw extruder (Column 5 lines 65). Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 4, 5, and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Casiraghi in view of the WIPO Patent Application Publication to Rogestedt (WO9703124A1).

With respect to Claim 2, Casiraghi teaches the cable according to Claim 1. Casiraghi does not teach an optical cable wherein said first polymer has a melt flow rate less than 6g/10 min. Rogestedt teaches a cable wherein the first polymer has a melt flow rate less than 6g/10 min (Page 8 line1) to find the optimal density configuration of the polymer mixture. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Rogestedt's first polymer melt flow rate attribute to Casiraghi optical cable in order to manipulate different density of the polymer mixture to obtain better process ability.

With respect to Claim 4, Casiraghi teaches the cable according to Claim 1.

Casiraghi does not teach an optical cable wherein the proportion of said second polymer is at most 20% by weight of said polymer mixture. Rogestedt teaches a

Art Unit: 2874

cable wherein the proportion of said the polymers is at most 20% by weight of said polymer mixture (Page 4 line 10-15) to produce a cable with improved properties. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Rogestedt's polymer weight limitations of 20% to Casiraghi optical cable in order to produce a product with better properties such as ESCR, shrinkage, and mechanical strength.

With respect to Claim 5, Casiraghi teaches the cable according to Claim 1. Casiraghi does not teach an optical cable wherein the proportion of said second polymer is from 5%-20% by weight of said polymer mixture. Rogestedt teaches a cable the proportion of said the polymers is at most 20% by weight of said polymer mixture (Page 4 line 10-15) preferably 1-10% to produce a cable with improved properties. It would have been obvious to one of ordinary skill in the art at the time of the invention to apply the teaching of Rogestedt's polymer weight limitations of 5%-20% of the polymer weight mixture to Casiraghi optical cable in order to produce a product with better properties such as ESCR, shrinkage, and mechanical strength.

Response to Arguments

Applicant's arguments filed November 30, 2005 have been fully considered but they are not persuasive. Applicants traverse on grounds that the reference does not teaches a metallic conductor, an insulative layer positioned on the inside of an armor layer, and the referenced prior art does not teach a polymer mixture which will result in an improved tracking resistance.

Art Unit: 2874

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the feature upon which applicant relies a metallic conductor recited in the rejected claims. Casiraghi teaches the use of a conductor layer (Column 3 lines 40-45) as stated in the prior office action. In the US Patent (6,278,825 B1) reference clearly state on Page 3 lines 42 the use of a "high voltage conductor". Since Casiraghi does teach the usage of a conductor layer surround a fiber, the invention as claimed in Claim 1 is not novel.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an insulating layer positioned on the inside of the armor layer) are not recited in the rejected claim(s). Casiraghi disclosed a fiber cable system wherein insulative layer is surrounding the conductor of claim 1. With respect to claim 1, applicant did not state the positioning of the insulating layer relative to the armor layer. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a polymer mixture which will result in an improved tracking resistance layer) are not recited in the rejected claim(s). Casiraghi disclosed a fiber cable system wherein insulative layer comprises of a high density and low-density polymer as state in the rejection above and in prior office action. With

Art Unit: 2874

respect to claim 1, applicant did not claim the limitations in which the resulting polymer mixture will result in an improved high tracking resistance layer.

Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988

F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoang Tran whose telephone number is 571-272-5049. The examiner can normally be reached on 9:00AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on 571-272-2344.

Art Unit: 2874

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pairdirect.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (tollfree).

Hoang Tran AU 2874

December 20, 2005

Sung Pak Primary Examinen Au 2824